

METHOD, SYSTEM, AND PROGRAM FOR GENERATING
PARITY DATA

Inventors: Mark A. Schmisseur, Docket No. P17729
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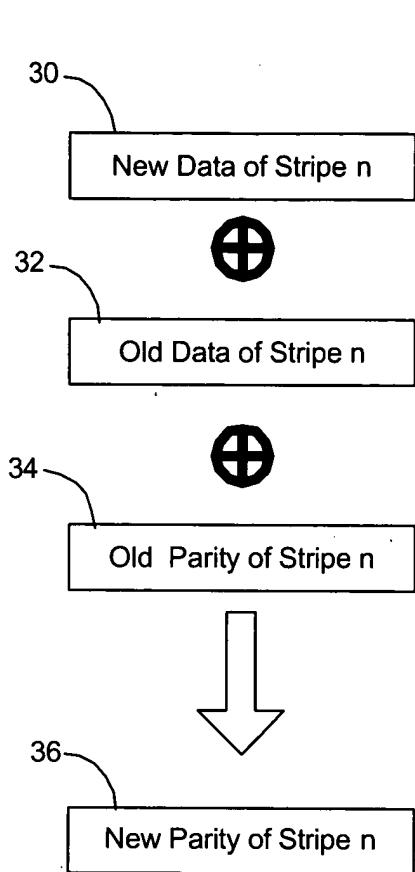


FIG.1
Prior Art

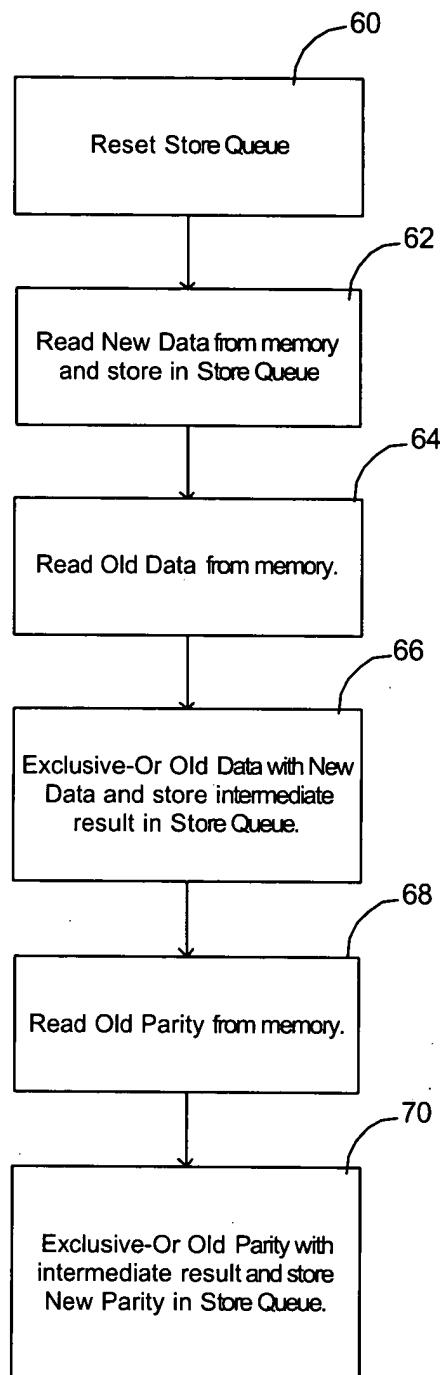
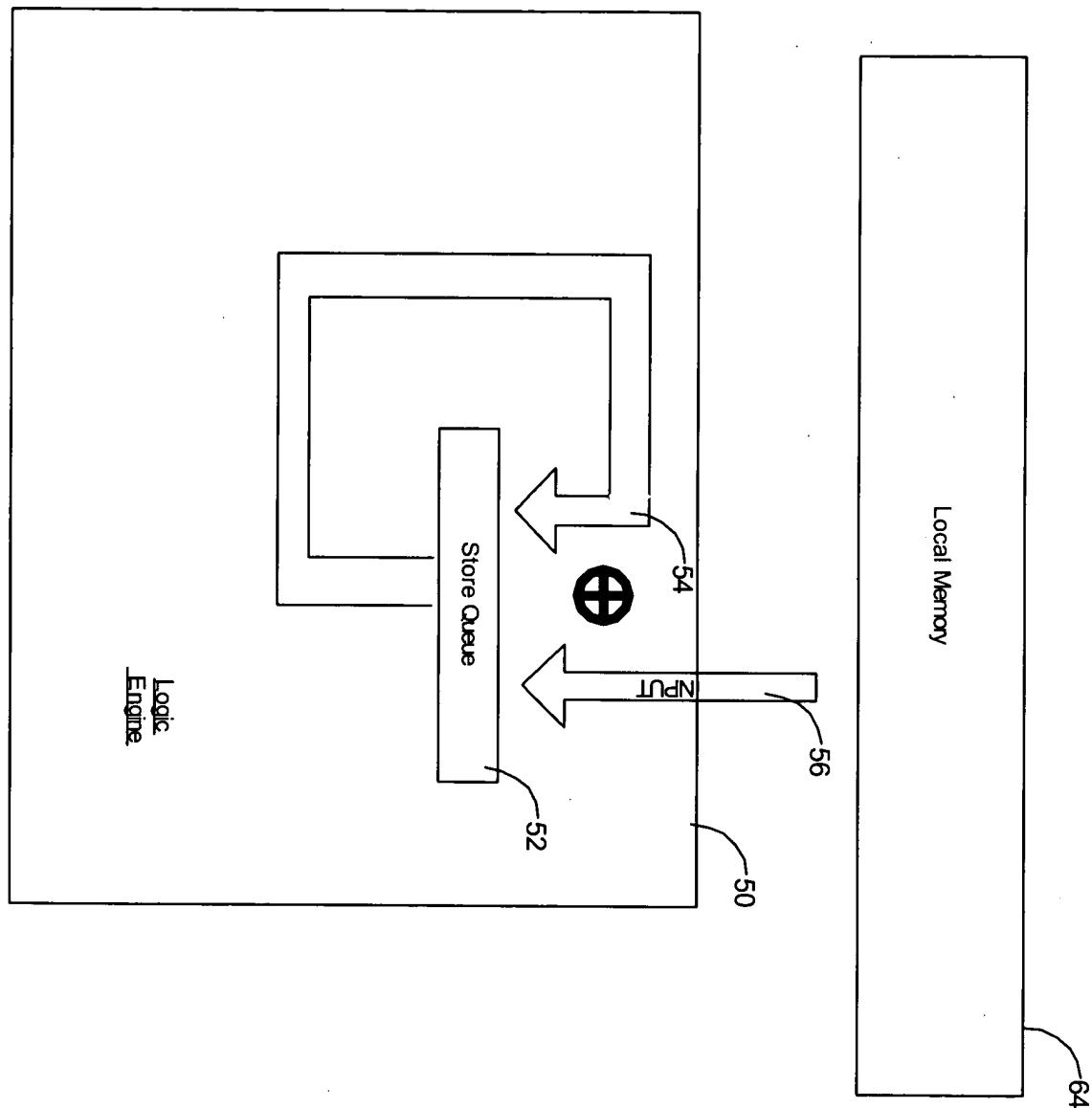


FIG. 3
Prior Art

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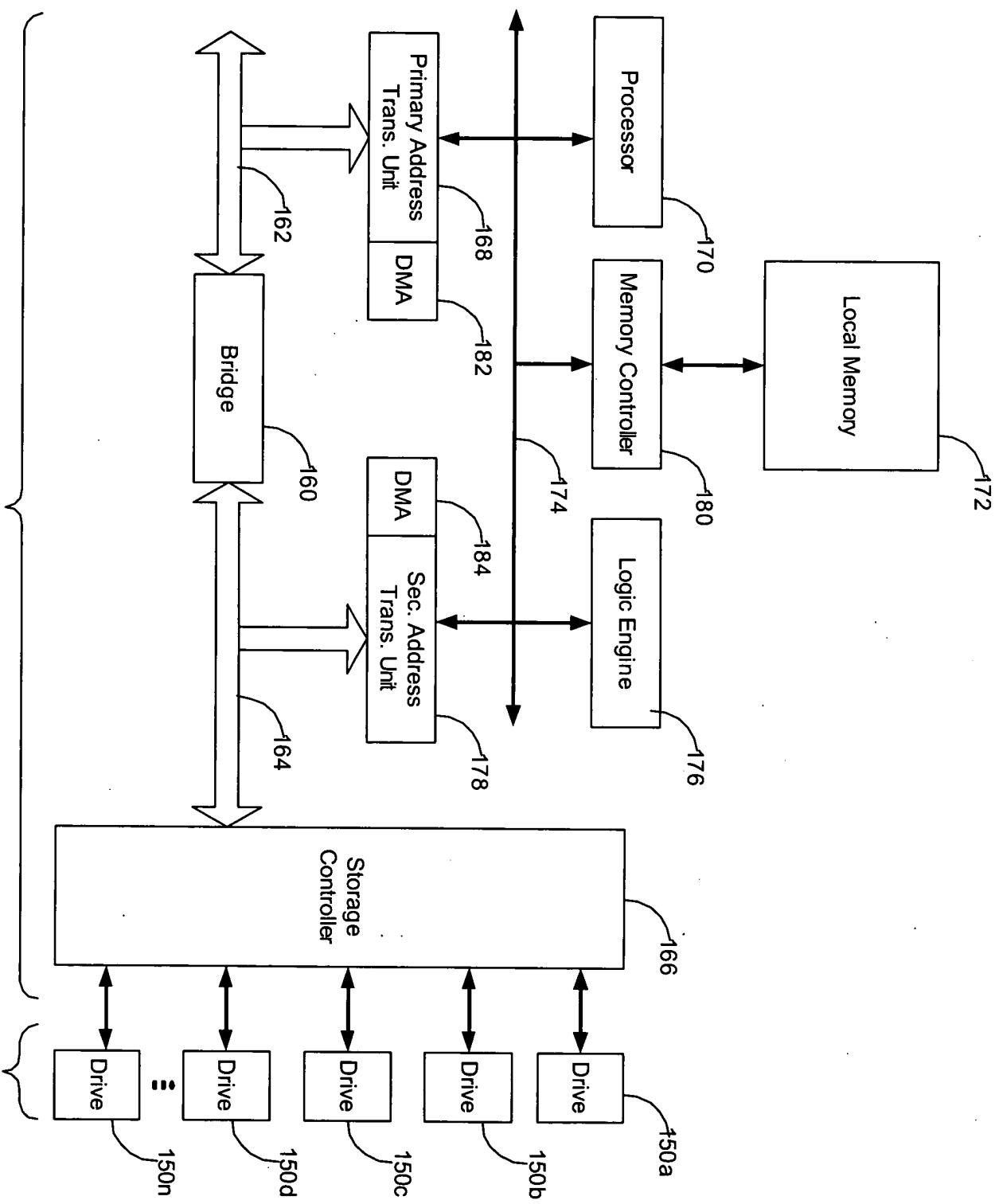


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FIG. 5

Storage Processor 109

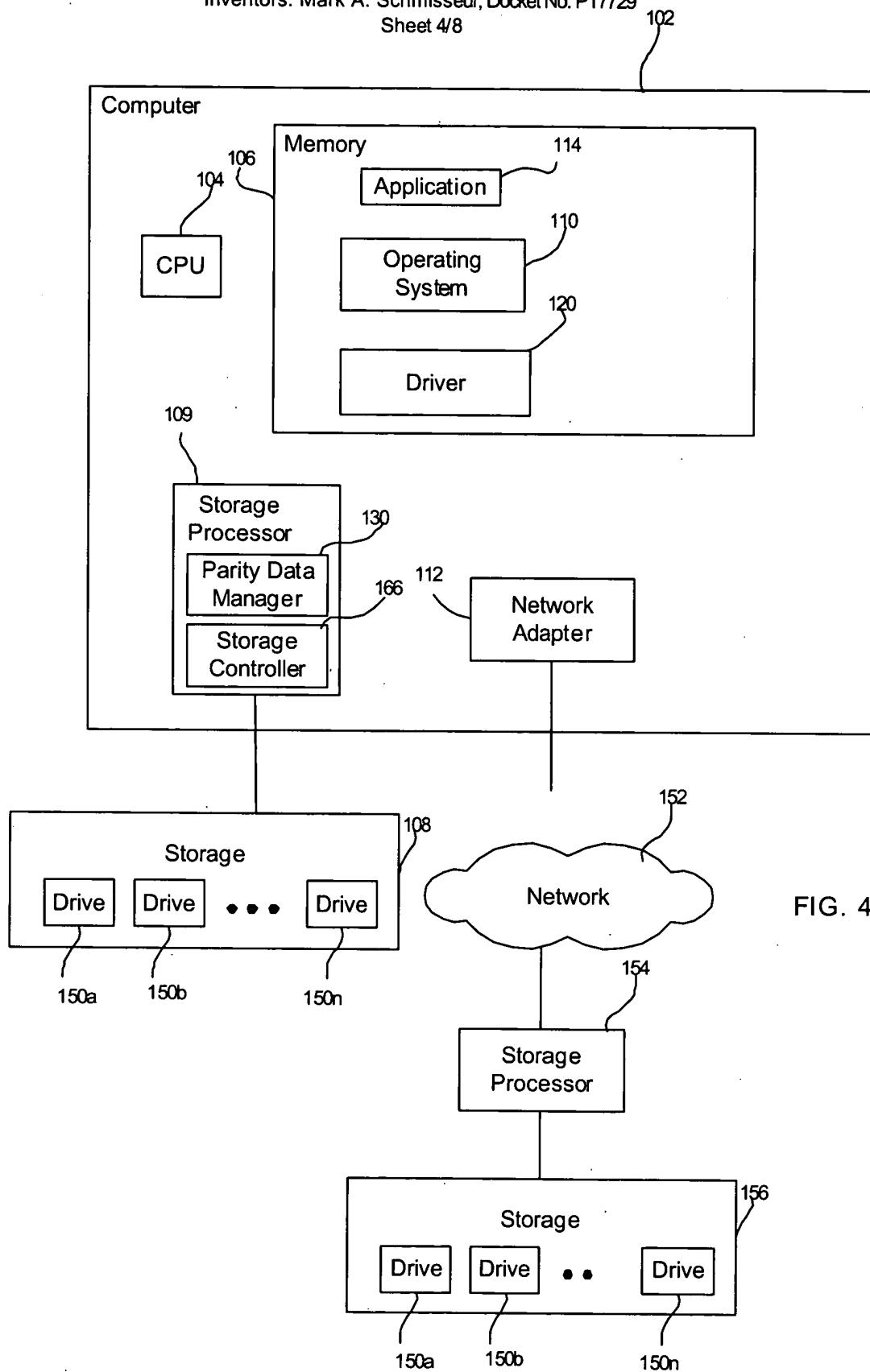
Storage 108



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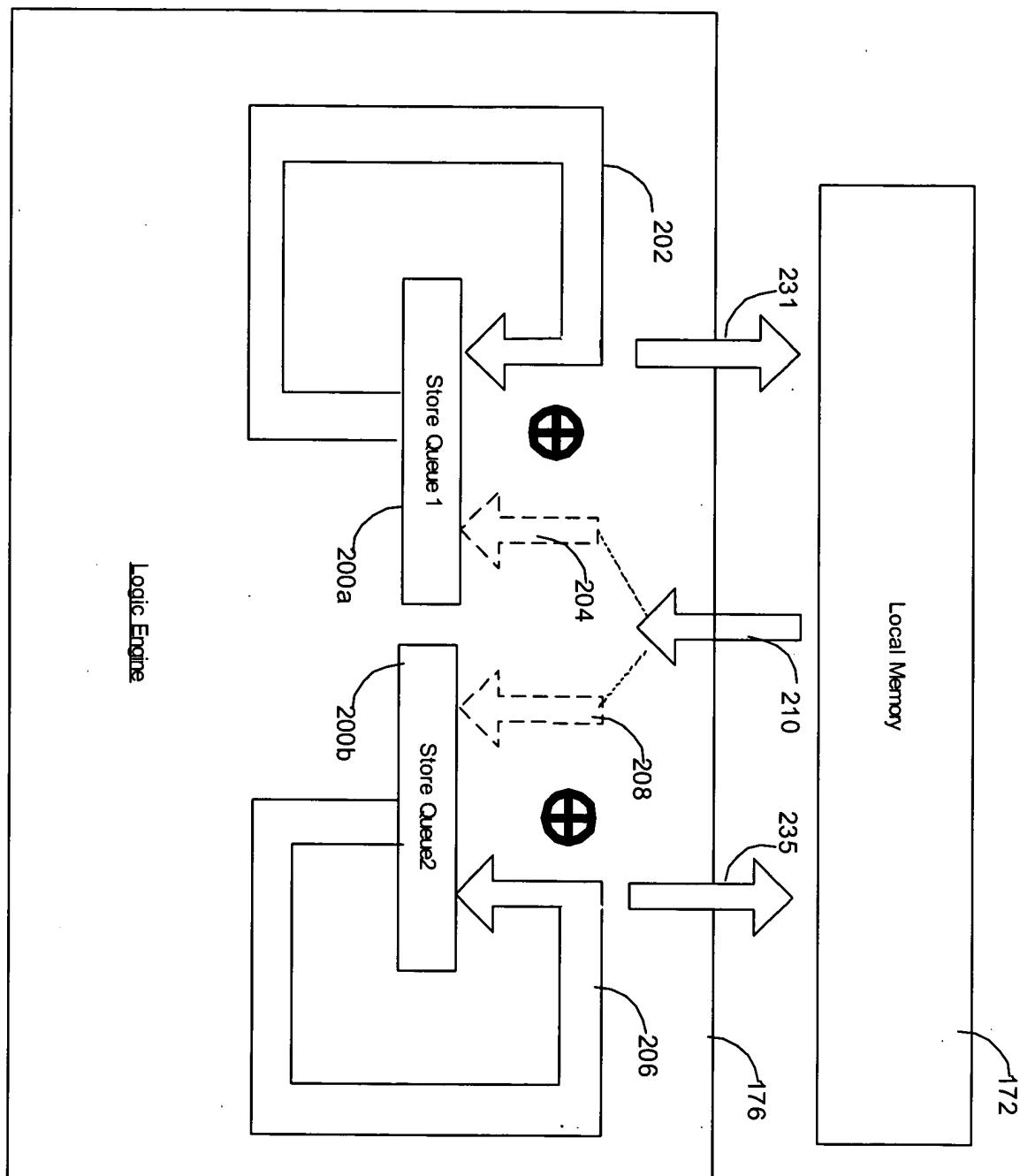


FIG. 6

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FIG. 7A

Contents of Store Queue 1

Contents of Store Queue 2

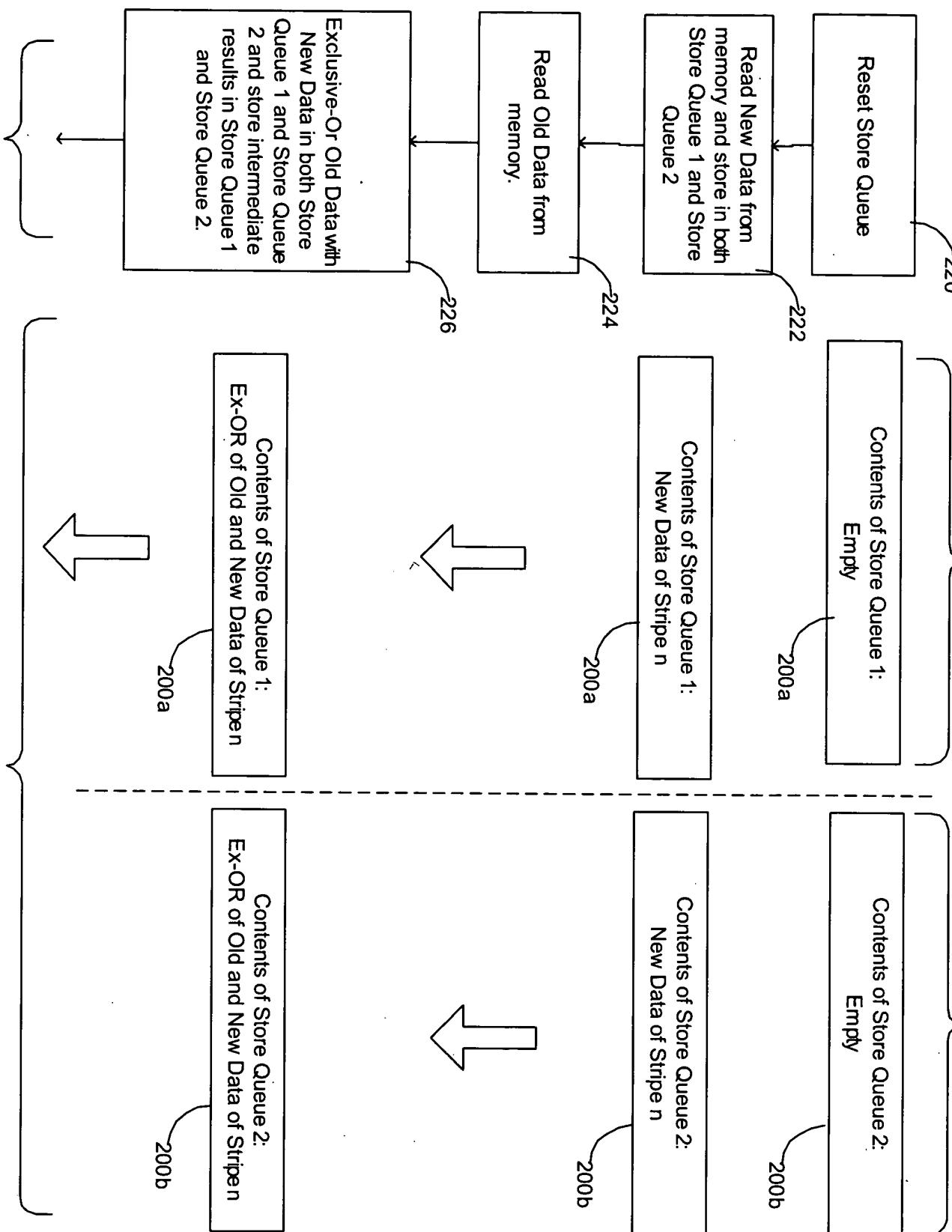


FIG. 8A

FIG. 9

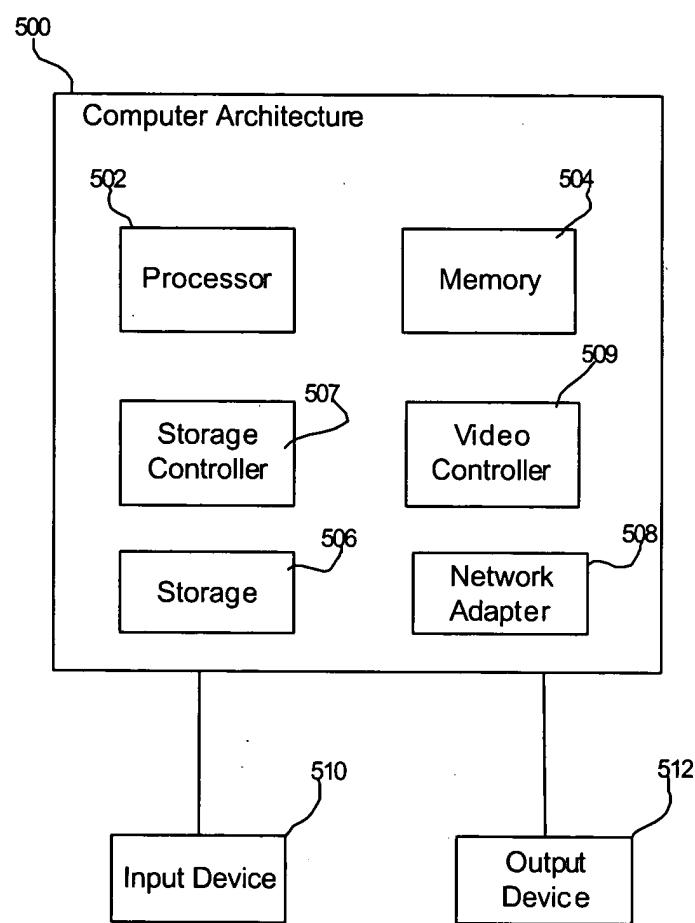


FIG. 7B

Contents of Store Queue 1

Contents of Store Queue 2

228

Read Old Horizontal Parity
from memory.

230

Exclusive-Or Old
Horizontal Parity with
intermediate result in Store
Queue 1 and store New
Horizontal Parity in Store
Queue 1.

Contents of Store Queue 1:
Ex-OR of Old and New Data and Old
Horizontal Parity of Stripen

200a

Read Old Diagonal Parity
from memory.

232

Exclusive-Or Old Diagonal
Parity with intermediate
result in Store Queue 2
and store New Diagonal
Parity in Store Queue 2.

FIG. 8B

Contents of Store Queue 2:
Ex-OR of Old and New Data and Old
Diagonal Parity of Stripe n

200b